ROZSAI, Istvan, dr.

Crisis and future of the science of body constitution. Orv. hetil. 105 no.31:1441-1447 2 Ag '64.

1. Gyor-Sopron megyei Tanacs Korhaz, Sebeszeti Osztaly.

ROZSOS, Istvan, dr.

Cholecystectomy in a case of total situs inversus. Orv. hetil. 106 no.5:226-227 31 Ja '65.

1. Kaposvari Korhaz, I. Sebeszeti osztaly (foorvos Szabo, Bela dr.).

ROZSOS, Istvan, dr.

Review of our cases of gallbladder perforation. Orv. hetil.
106 no.40:1887-1890 3 0 '65.

1. Kaposvari Korhaz, Sebeszeti Osztaly (foorvos: Szabo, Bela, dr.)

ROZSOS, Istvan, dr.; SZABO, Gyula, dr.

Appendiceal carcinoid and multiple diverticuli of the vermiform process. Orv. hetil. 106 no.39:1857-1858 26 S '65.

1. Kaposvari Korhaz, I. Sebeszeti Osztaly (foorvos: Szabo, Bela, dr.) es Korbonctani-Korszovettani Osztaly (foorvos: Prievara, Janos, dr.).

ROZSOS, Istvan, dr.; BARCZI, Antal, dr.

Gallbladder perforation during epidemic hepatitis in childhood. Orv. hetil. 106 no.45:2147-2148 7 N '65.

1. Kaposvari Korhaz, Fertozo Osztaly (foorvos: Svastits, Pal, dr.) es Sebeszeti Osztaly (foorvos: Szabo, Bela, dr.).

HUNGARY

ROZSOS, Istvan, Dr; Hospital of Kaposvar, Surgical Ward (chief physician: SZABO, Bela, Dr) (Kaposvari Korhaz, Sebeszeti Osztaly).

"Twisting of the Omentum."

Budapest, Orvosi Hetilap, Vol 107, No 49, 4 Dec 66, pages 2334-2335.

Abstract: [Author's Hungarian summary] A case of acute abdomen, caused by a five-fold twisting of the omentum, is described. In the obese, 34 year old male patient, twisting of the omentum major occurred following reposition of a hernia. On the basis of the previous history and of the clinical symptoms, successful surgery was performed because of a presumed intestinal rupture. The symptoms of the disease are described; they do not represent a characteristic symptom complex but rather resemble other, more frequently encountered acute abdominal processes. 11 Hungarian, 3 Western references.

2473

ROZSOS, Istvan, Dr; Hospital of Kaposvar (director: TARJAN, Laszlo, Dr), I. Surgical Ward (chief physician: SZABO, Bela, Dr) (Kaposvari Korhaz, I. Sebeszeti Osztaly).

"The Surgical Mortality of Cholelithiasis."

Budapest, Magyar Sebeszet, Vol XX, No 1, Feb 67, pages 38-42.

Abstract: [Author's Hungarian summary] The mortality rate of 989 cases of gall bladder surgery, performed at the surgical ward of the hospital between 1956-64, is reported. The data are compared with a few other, chiefly domestic statistics. The correlations between the degree of the pathological changes present in the biliary system as well as the extent of surgical intervention, and the mortality rate are analyzed. The fact that simple cholecystectomy was possible in only 32.5 per cent of the cases is considered to be one of the reasons for the 2.7 per cent total mortality reported. An improvement in the results can be brought about by the decrease in the number of technical errors the danger of which is always present, by a narrowing of surgical indications in certain areas and by an improvement in the protection furnished in the course of the operation. 13 Hungarian, 6 Western references.

HUNGARY

ROZSOS, Istvan, Dr., Hospital of the Megye Council, First Department for Surgery (Megyei Tanacs Korhaza, I. Sebeszeti Osztaly) in Kaposvar, Megye Somogy (Director: SZABO, Bela, Dr.).

"Twisting of the Bile Duct"

Budapest, Orvosi Hetilap, Vol 107, No 26, 26 Jun 1966, pp 1213-1215.

Abstract: Cases of twisted bile duct were discussed on the basis of references in the literature and two instances of the author's experience, the latter involving a 73-year old and a 82-year old women. Both cases recovered fully following therapy involving cholecystectomy. 31 references, including 4 German, 3 Hungarian, and 24 Western.

1/1

ROZSOS, Tamasne

Hungarian inventions at the Budapest Industry Fair. Ujit lap 13 no.11: 18-21 Je '61.

1. Orszagos Talalmanyi Hivatal Kozgazdasagi Osztalyanak ugyintezoje, Budapest.

(Hungary--Inventions) (Hungary--Industries)

ROZSYPAL, Anton, prof., inz.

Twenty five years of the Slovak Higher School of Technology. Slaboproudy obzor 24 no.9:501-502 S '63.

ROZSYPAL, Anton, inz.

Coincidence filter. Slaboproudy obzor 26 no.1:50-51 Ja '65.

ROZSYPAL, D.; FEDOR, R., inz.

High-voltage cables with aluminum coating. Elektrotechnik 18 no.2: 50-51 F '63.

1. Nova hut Klementa Gottwalda, n.p., Kuncice (for Rozsypal).
2. Vyskumny ustav kablov a izolantov, Bratislava (for Fedor).

KUHN, Ludvik, inz.; ROZTOCIL, Jaroslav, inz.

An exhibition of electric measuring instruments in London in 1960.
Slaboproudy obzor 21 no.9:549-553 S '60. (EEAI 10:1)

1. Statni vyzkumny ustav tepelne techniky, Praha
(Electric measurements) (London--Exhibitions)

ROZSYPAL

CZECHOSLOVAKIA / Zooparasitology. Ticks and insect-vectors of disease pathogens G-3

Abs Jour : Referat.Zh.Biol., No 2, 1958, 5425

Author : Rozsypal

Inst : Not given

Title : Mycoses in Calliphora vimitoria L.flies in places of their mass multiplication.

Orig Pub : Zool. listy, 1957, 6, No. 1, 12-16

Abstract : No abstract.

Card 1/1

ROZSYPAL, A.

The present situation in the production and use of insulating materials in Czechoslovakia from the point of view of their resistance to heat. p. 38.

(Strojnoelektrotechnicky Casopis. Vol. 8, no. 1, 1957. Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

ROZSYPAL, A.

"Werner Espe's Technologia hmot vakuovej techniky, I. (Technology of Materials in Vacuum Technique Vol. I); A book review."

p. 415 (Strojnoelektrotechnicky Casopis) Vol. 8, no. 5, 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. VOL. 7, no. 4,
April 1958

ROZSYPAL, A.

"Electricity, Aid to Man." p. 417 (PRIRODA A SPOLOCNOST. Vol. (2), No. 7, 1953; Praha, Czech.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, April 1955, Uncl..

ROZSYPAL, Anton, inz.

Determining the sound absorption of a room by graphic method.
Slaboproudy obzor 24 no.4:244-245 Ap '63.

ROZSYPAL, B.

Device for producing beryllium foils for X-ray spectrographs. Jemna mech opt 6 no.4:118-121 Ap '61.

1. Ustav technicke fysiky, Ceskoslovenska akademie ved, Praha.

(Spectrograph) (Beryllium)

Z/030/61/000/004/001/003
A121/A126

AUTHOR: Rozsypal, B.,

TITLE: Device for the production of beryllium foils

PERIODICAL: Jemná mechanika a optika, no. 4, 1961, 118 - 121

TEXT: The author describes a device for the production of beryllium foils used in X-ray spectroscopy and submits data on the production technology. Mentioned are also the failures which may occur and proposals are made concerning further constructional improvements and possibilities of application for other purposes. The Czechoslovak apparatus (Figure 4) for vaporizing by means of electron heating has been designed in order to safeguard a high vacuum, a short pumping time, an easy sharp-focusing of electron beam, a mobility of the sputtering shuttle in order to ensure the adjustment of electron incidence and a safe operation. The steel tube, representing the main component of the device has an inner diameter of 60 mm. The electron gun (8, 9, 21, 22, 29 etc) is attached to the main body (19) at an angle of 45°, causing an inclined incidence of electrons on the beryllium. The electron-beam focusing takes place by moving the electron jet (8) cathode, whereby the focusing Wehnelt-cylinder

Card 1/9

Z/030/61/000/004/001/003
A121/A126

Device for the production of beryllium foils

(21) remains fixed. To the high-voltage elements (5, 38, 39, etc) a voltage up to 40 kw can be supplied. The sputtering shuttle (3) or the support are movable; their position is fixed by means of 3 adjusting screws to the flanges. A new control mechanism (Figure 4 b) has been designed to speed up the shuttle adjustment; this is performed by a worm gear driven by the rotary knob (63). A sliding metal orifice (55, Figure 4 a) designed for the collection of the initial metal vapor in order to ensure a high purity of the sputtered layer is mounted between the source and the produced layer. The operation is observable by means of a magnifier (25), diameter 60 mm, f = 300. The cover of the device is equipped with a glass cock (33) for the rubber tube (32). An additional tube (26) is required for the sputtering of a nontransparent basis; an orifice (55) for the separation of the molecular rays of the beryllium was inserted into the tube as shown in Figure 4 a. In this case the sputtering process is controllable indirectly depending on the light-transmittance of the mica disk (59). The vacuometer (10, Figure 4), connected by the large cone (48), diameter 19 mm, has a range of 10^{-3} to 10^{-5} tor. On the lower right side the main vacuum valve is located (14, 18, 20, 12, etc); its discharge opening has a diameter of 70 mm and a valve stroke of 75 mm. A diffusing vacuum pump of 150 lit/sec capacity

Card 2/9

Z/030/61/000/004/001/003
A121/A126

Device for the production of beryllium foils

can be connected. Around the step-up gear (18) the annular de-icer system (13) is mounted to two tubes (14) in such a way that the system does not touch the walls. The cooling agent passes through these tubes. The container has a capacity of 300 cm^3. Vertically below the main valve the diffusing vacuum pump of 30 lit/sec capacity, supplied by the Tesla-Elstroj, is mounted to the flange. The backing pump of 7 m^3/h is produced by the Chirana Enterprise. The rough-vacuum piping consists of 25 mm diameter glass tubes, the glass cock has a bore of 15 mm diameter. In order to ensure complete tightness all parts of the device have been galvanized. The cathode filament (8) is spirally wound, its mounting is shown in Figure 4. The entire electron jet is easily demountable - except the focusing cylinder (21) - by means of the screw cap (52). The main body is water-cooled. A pressure of $2 \cdot 10^{-5}$ tor was measured after 100 minutes of pumping. Figure 5 shows the circuit diagram. The sputtering shuttle with the beryllium represents the anode, connected to the positive pole of a 7 kv d-c source. A description of various tests is included in the article. The tests performed showed satisfactory results. Future tests will include the preparation of condensation basis. The device can also be used for the metallizing of heavily meltable materials like tantalum, tungsten and their alloys.

✓

Card 3/9

Z/030/61/000/004/001/003
Device for the production of beryllium foils A121/A126

There are 3 photos, 4 figures and 7 non-Soviet-bloc references. The references to the English language publications read as follows: Kelly, F. C., Iron Age, 156, p. 68, 1945; Bradner, H. Rev. Scie. Instrum., 19, p. 662, 1948; Holden, R. B., Spencer, R. and Johnson, H. L. J. Amer. Chem. Soc., 70, Soc., 70, p. 3897, 1948; Smith, H., J. sci. Instrum., 26/1949, 378.

ASSOCIATION: Ustav technické fysiky - ČSAV, Praha (Institute of Technical Physics, ČSAV, Prague)

SUBMITTED: October 28, 1960

Figure 4: Full schematic diagram of the device for the metal sputtering by means of electron heating. 1 - Support with sputtered foil; 2 - sputtered metal; 3 - shuttle on the copper block; 4 - chuck; 5 - anode steel pin; 6 - high-voltage cable; 7 - rubber sealing; 8 - glowed tungsten cathode; 9 - steel pin; 10 - vacuometer. 11 - shielded cable; 12 - locking disk; 13 - annular de-icer container; 14 - charging hole; 15 - control lever; 16 rotary knob of the valve; 17 - non-removable suspension of bearings; 18 - Hinged lifting mechanism;

Card 4/9

R1AM

ROZSYPAL (J.). **Zpráva o škodlivých činitelich kulturnich plodin ve vegetačnim obdobi 1940–41 na Moravě.** [Report on harmful factors affecting crops in Moravia during the season 1940–41.]—*Ochr. Rost.*, xviii, pp. 17–24, 1942. [German summary. Received January, 1947.]

In Moravia, Czechoslovakia, in 1940–1 [*R.A.M.*, xvii, p. 500 and preceding abstract] stem-breaking of wheat caused by *Ophiobolus herpotrichus* was of epidemic proportions. *Phoma betae*, *Pythium* sp., and *Corticium solani* caused considerable damage to beet, up to 20 per cent. in certain fields. Sugar beet was also attacked by *Bacterium tumefaciens* and to a lesser degree by *Cercospora beticola*.

0

Country : CZECHOSLOVAKIA
Category: Plant Diseases. Diseases in Cultivated Plants.

Abs Jour: RZhBiol., No 18, 1958, No 82713

Author : Rozsypal, Jan.
Inst : Biological Inst., Czechoslovakian Acad. of Sciences, Brno.
Title : Notes on Virus Diseases of Poppy Plants.

Orig Pub: Ceskosl. biol., 1957, 6, No 6, 438-440

Abstract: Symptoms are described of a disease in poppy plants suggestive of virus diseases, and data are cited on various types of infection (yellows, yellow coloration, mosaic-like affliction of the leaves, stalks, and petals of the calyx). Etiology of these diseases has still not been established. The work

Card : 1/2

LINCOVA, L., promovany ekonom; ROZSYPAL, O., promovany ekonom

Changes in the standardization of the stock of metallurgical products. Podn org 17 no.9:428-430 S'63

L 20820-66 EWP(w)/EWA(d)/T/EWP(t) IJP(c) JD

ACC NR: AP6012016 SOURCE CODE: CZ/0057/65/000/004/0167/0171

AUTHOR: Cechura, Frantisek (Engineer); Rozsypal, Rostislav (Engineer)

ORG: TZVRSR, Trinec 24

TITLE: Inclination of rail steel to flakiness B

SOURCE: Hutnik, no. 4. 1965, 167-171

TOPIC TAGS: structural steel, fabricated structural metal, metallurgic furnace, bauxite

ABSTRACT: A study of 184 charges was made. The rails containing flakes showed a higher strength; rails from the 50 ton furnaces had a strength over 81 kg/mm sq, and from the 130 ton furnace 82 kg/mm sq. The charges containing flakes had less S and more Si; they had a shorter residence in the soaking furnace. Charges that were carbonized showed higher flakiness than those that were not. Addition of bauxite, rate of decarbonization, carbon content during melting down had no influence upon the flakiness of the product. The present equipment in the authors' works does not allow a continuous production of high strength rails. Orig. art. has: 4 figures and 6 tables. [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 003

Card 1/1

ROZSYPAL, K.

"Possible use of control diagrams in metallurgy."

Hutnik. Praha, Czechoslovakia. Vol. 9, no. 4, Apr. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

ROZSYPAL, R.; DUDA, J.

Use of a moist blast in the V. M. Molotov Ironworks at Trinec. p. 342.
(Hutnicke Listy, Vol. 12, No. 4, Apr. 1957, Brno, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

CZECHOSLOVAKIA

HYNEK, Z; ROZSYPAL, S.

1. Regional Projects Institute (Krajsky projektovy ustav), Olomouc; 2. Okres Institute of National Health (Okresni ustav narodniho zdravi), Olomouc

Bratislava, Farmaceuticky obzor, No 9,1963, pp 3 413-419

"Rec;nstruction of Apothecaries as Objects of Memory."

ROZSYPAL, STANISLAV

Rozsypal, Stanislav. Uvod do vseobecne fysiologie mikroorganismu. (Vyd. 1.) Praha, Statni pedagogicke nakl., 1955. 274 p. (Ucebni texty vysokych skol) (Introduction to the general physiology of microorganisms; a textbook. 1st ed. bibl., diagrs.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.

KUN, L., inzh. (Chekhoslovatskaya Sotsialisticheskaya Respublika);
ROZTOCHIL, Ya., inzh. (Chekhoslovatskaya Sotsialisticheskaya
Respublika)

Electric balancing devices for field use. Vest.elektroprom. 33
no.6:73-77 Je '62. (MIRA 15:7)
(Electronic apparatus and appliances) (Electric meters)

ROZTOCIL, F.

Efficiency of railroad yards in train forming, p. 293.

ZELEZNICNI DOPRAVA A TECHNIKA. (Ministerstvo dopravy)
Praha, Estonia. Vol. 7, No.10, 1959.

Monthly list of East European Accessions (EEAI), Vol. 9, No. 1, Jan. 1960

Uncl.

ROZTOCIL, J., inz.

Wien bridge in transistor circuits. Sdel tech 9 no.9:347 S '61.

ROZTOCIL, Jaroslav, inz.

A stable transistor oscillator. Slaboproudy obzor 24 no.11: 650-653 N'63.

1. Statni vyzkumny ustav tepelne techniky, Praha.

L 44803-66

SOURCE CODE: CZ/0078/66/000/002/0008/0008

ACC NR: AP60[illegible]168 (A)

INVENTOR: Princ, Petr (Prague); Roztocil, Jaroslav (engineer; Modrany)

ORG: none

TITLE: (Frequency divider with harmonic oscillator) CZ Pat. No. PV 257-65, Class 21

SOURCE: Vynalezy, no. 2, 1966, 8

TOPIC TAGS: frequency divider, harmonic oscillator

ABSTRACT: A frequency divider with a harmonic oscillator and a relaxation synchronizer is described which has the distinguishing feature that the harmonic oscillator is constituted by a heptode to the second control grid of which is connected a tunnel LC circuit coupled to its first control grid by a frequency stabilizer, for example, by a crystal. The relaxation circuit is constituted by the remaining electrodes from the heptode and by the triode just as a Smidt circuit the input of which is with the synchronizing circuit, connected through a differentiating circuit to the control grid of a double triode of which the systems, consitituting an asymmetrical multivibrator, are connected from one side to the output of a stabilized harmonic frequency fed from the tuned LC circuit. From the other side in the grid circuit

Card 1/2

L 44803-66

ACC NR: AP6020168

of the double triode system, constituting a cathode follower, is connected the output of the divided, stabilized, harmonic frequency of the second tuned LC circuit constituting at the same time the source for consumption by locking pulses of the fundamental frequency. A the same time the divider is triggered by the synchronizing pulses of the fundamental frequency charging the condenser of the synchronizing circuit.

SUB CODE: 09/ SUBM DATE: 14Jan65

Card 2/2 blg

L 18838-65 EWT(l)/EWT(m)/EEC(t)/EWP(w) Peb AFWL/AFETR/ASD(a)-5/AEDC(a)/
AS(mp)-2/SSD/ESD(t)/ESD(gs)/ESD(dp)/IJP(c) EM/RH
ACCESSION NR: AP3002920 Z/0032/63/013/006/0460/0463

AUTHOR: Kuhn, L. (Engineer, Candidate of sciences); Roztocil, J. (Engineer) B

TITLE: Measurement of the vibration and dynamic balancing of machines using the Hall effect 7 gm

SOURCE: Strojirenstvi, v. 13, no. 6, 1963, 460-463

TOPIC TAGS: Hall effect, semiconductor, transistorized circuit, printed circuit, vibration vector, dynamic balancing, rotating body, selective measurement, vibration pickup, tachometer, vibration phase, vibration amplitude, speed range, acceleration range

ABSTRACT: The article describes a method for the selective measurement of the vector of vibration with a device operating on the principle of the Hall effect. Such a device finds practical application in the dynamic balancing of rotating bodies. The operating principle and the fields of application of the device are discussed and its characteristics evaluated. The Hall multiplier has the advantage of being of small size, sturdy, and easy to manufacture; it has linearity within 1%, and its frequency range is limited only by the voltage amplifier and the

Card 1/3

L 18838-65
ACCESSION NR: AP3002920

0

magnetic circuit. Its disadvantage is the temperature dependence of the semiconductors. Nevertheless, the function of the device is not affected up to 40°C, and the change of measured values is within ±3%. It makes it possible to use a device of all-transistorized construction for the measurement of vibration and dynamic balancing. The device consists of three independent units: 1) the unit measuring amplitude of vibrations with the oscilloscope and the vibration pickup; 2) the unit measuring the vector of vibrations with the tachometer and the harmonic voltage generator; 3) the automatic battery rectifier. The whole assembly was designed as three separate units with a view to greater versatility in its applications, the first unit serving where it is desired to know only the magnitude of vibrations. When the vector of vibrations is required, it is connected to the selective vector of vibrations measuring unit with which it is possible to measure the amplitude and phase of vibrations in the amplitude range of 10 to 1,000 μm in the frequency band of 10 to 100 cycles (600 to 6,000 per min). The range of speeds is from 0.1 to 10 cms^{-1} and of accelerations from 1 to 100 ms. Each unit is fed from its own storage batteries. It is pointed out in conclusion that transistorization and the utilization of phenomena proceeding in semiconductors make possible, in connection with printed circuit technique, reduced instrument size and reduced weight and

Card 2/3

L 18838-65
ACCESSION NR: AP3002920

considerable reduction of required power and breakdown. Orig. art. has: 7 diagrams and 10 formulas.

ASSOCIATION: SVUTT, Prague

SUBMITTED: 00 ENCL: 00 SUB CODE: EC, EM

NO REF SOV: 000 OTHER: 006

Card 3/3

KUHN, Ludvik, inz., C.Sc.; ROZTOCIL, Jaroslav, inz.

Transistor stroboscope for measurement of vector vibrations.
Sdel tech 10 no.6:217-218 Je '62.

ROZTOCIL, Jiri

The L-60 Brigadyr aircraft on ski. Letecky obzor 7 no.4:108-109 '63.

KUHN, L.; ROZTOCIL, J.

Accumulator charger for general use. Sdel tech 10 no.8:314 Ag '62.

L 769-64

ACCESSION NR: AP3005721 Z/0032/63/013/007/0519/0525

AUTHOR: Kuhn, L.; Roztocil, J.

TITLE: Measurement of forces and vibrations by piezoelectric pickoffs

SOURCE: Strojirenstvi, v. 13, no. 7, 1963, 519-525

TOPIC TAGS: force measurement, vibration measurement, ceramic material, pressure pickoff, transducer, sensor, sensing device

ABSTRACT: Article describes the use of barium titanate piezoelectric pickoffs in measurement technique. Various methods for polarizing barium titanate ceramic materials are explained briefly and their characteristic electrical and mechanical properties are evaluated. Trends in the design of pressure and vibration pickoffs based on utilization of piezoelectric phenomena. Circuitry of an electrometric amplifier for piezoelectric pickoff is explained in detail. Author points out the advantages of employing $BaTiO_3$ in measurement technique. Orig. art. has: 12 figures and 34 equations.

ASSN: SVUTT, PRAGUE

Card 1/1

ROZTOCIL, O.

Chapters from agricultural economy. V. A low producmtion is more expensive than a high and intensive production.

P. 26, (Rolnicke Hlasy) Vol. 30, no. 4, Aug. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

CZECHOSLOVAKIA

NEMECEK, L., MVDr; ROZTOCIL, V., doc MVDr, CSc; REZNICEK, V., MVDr

Brno (for all)

Brno, Veterinarstvi, No 12, December 1966, pp 551-552

"Treatment of actinomycosis with iodine preparations."

Microbiology

CZECHOSLOVAKIA

MRAZ, O.; ROZTOCIL, V.; ZENDULKA, M.; Chair of Microbiology, Immunology, and Zoohygiene, Veterinary Faculty, College of Agriculture (VSZ, Veterinarni Fakulta, Katedra Mikrobiologie, Imunologie, a Zoohygieny), Brno.

"New Microbial Findings Concerning Actinomycosis in Cattle and an Attempt at the Reproduction of Pathological Changes."

Prague, Veterinarni Medicina, Vol 11, No 10, Oct 66, pp 621-633

Abstract /Authors' English summary modified/: 125 head of cattle suffering from actinomycosis were examined clinically, histologically, and bacteriologically. In 5 animals Pasteurella hemolytica, in 1 Achromobacter anitratus, and in 1 Paracolobactrum intermedium were found. Experiments aimed at the reproduction of the pathological changes caused by the 3 bacteria cited were not successful. It is assumed that all 7 cases of infection were due to mixed infections. 4 Figures, 2 Tables, 13 Western, 6 Czech, 1 East German reference. (Manuscript received 28 Feb 66).

ROZTOCIL, V.

Evaluating and 2d Exhibit of the Czechoslovak Machinery Industry in Brno, 1956. p. 793. (STROJIRENSTVI, Vol. 6, No. 12, Dec 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

ROZTOCIL, V.

Electric rudder operation of river craft of Czechoslovak production.

p. 12 (CZECHOSLOVAK HEAVY INDUSTRY) No. 7, 1956,
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,
March 1958

ROZTOCIL, V.

Importance of cooperation between the USSR and people's democracies in the plan for technical development. p. 41.

ELEKTROTECHNIK Vol. 11, no. 2, Feb. 1956

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

ROZTOCIL, V.

Evaluating high-voltage electrical engineering at the 3d Exhibition of the Czechoslovak Machinery Industry in Brno.

p. 305 (Elektrotechnik) Vol. 12, no. 10, Oct. 1957, Praha, Czechoslovakia

SC: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, Jan. 1958

ROZTOCIL, Vilem, inz.

Czechoslovakia is a member of the International Union of Electroheat. Tech praca 16 no.10:800 0 '64.

ROZTOCIL, Vilem, inz.

New trends in the electric melting of materials. Tech praca 16 no.3:172-176 Mr '64.

ROZTOCIL, Vilem, inz.

Czechoslovakia became member of the International Union for Electroheat. El tech obzor 53 no.11:Suppl.: Zpravy 53 no.11:241-242 '64.

1. Chairman of the Central Technical Group of Electroheat Engineering affiliated with the Central Committee of the Czechoslovak Scientific Society, Section of Electrical Engineering.

ROZTOMILY, A.

Studies on epidemiology and pathogenesis of tetanus. Lek. listy, Brno 7 no. 10:249-251 15 May 1952. (CLML 22:3)

1. Of the Institute of Microbiology and Hygiene (Head--Prof. Jan. Kobelik, M. D.) of Palacky University, Olomouc.

ROZTOMILY, A.

Prevention of serpiginous ulcer in farmers. Lek. listy
5 no. 17:527-529 15 Sept. 1950. (CIML 20:1)

1. Of the Eye Clinic Palackeho University, Olomuce (Head--
Prof. Vaclav Vejdovsky, M. D.).

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

BC

d-3

Azo-compounds in volumetric analysis.—E. Rostovtseva (Anilinokras. Prom., 1933, 3, 309).—Better results are obtained in titration of β-$C_{10}H_7$·OH by standard PhN_2Cl by adding gelatin or gum arabic, which prevents flocculation of the dye formed.

R. T.

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ROZTROPOWICZ, Stanislawa, dr

Effect of sprouting of the tubers on the growth, development and yield of potatoes. Rocz nauk roln rosl 88 no.4:809-834 '64.

1. Institute of General Cultivation of Soil and Plants, Main School of Rural Economy, Warsaw.

ROZTROPOWICZ, Stanislawa

Biological and reproductive value of big and small potato tubers. Rocz nauk roln rosl 86 no.3:463-475 '62.

1. Zaklad Ziemniaka Instytutu Uprawy, Nawozenia i Gleboznawstwa, Warszawa. Kierownik: Prof. dr M. Birecki.

POLAND/Cultivated Plants. Potatoes, Vegetables, Melons. M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77658.

Author : Birecki, M.; Roztropowicz, St.
Inst :
Title : Relationship Between Size of Assimilation Surface of Potato Plants and Tuber Harvest.

Orig Pub: Roczn. nauk rolniczych, 1956, A74, No 1, 1-44.

Abstract: At the Reguly Experimental Station (near Warsaw), the assimilation surface of potato plants was regulated by means of removal of the stems. A dependence was established between the dynamic accumulation of harvests, size and the productivity of the assimilation surface. The highest harvest was obtained not from the many-stemmed plants, but from the shrubs, where the ration of leaves to stems was

Card : 1/2

POLAND/Cultivated Plants. Potatoes, Vegetables, Melons. M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77658.

optimal (1.8-1.5 in the first periods of growth and 1.2-1.4 in the periods of maximal weight of the part above ground). In the small-stemmed plants, harvest was lower than in other variants. Feeding with nitrogen fertilizers increased the productivity of the assimilation surface.

Card : 2/2

Roztropowitz, S.

Influence of the size and cutting of seed potatoes on crop yields. M. Birecki and S. Roztropowicz (*Roczn. Nauk rol.*, 1954, 70, A, 169—217).—Potato yields increased with the size of the seed sets, but the yield per unit wt. of seed reached optimum with seed of 50—80 g. With such seed 2000 sq. cm. of soil surface per plant is desirable: with smaller seed the area may be reduced. Small seed (20—40 g.) and halves of seed of 40—80 g. produced similar yields. With large seed tubers pieces cut lengthwise gave smaller yields than did "end" halves. Fertiliser recommendations include both farmyard manure and artificials.

A. G. POLLARD.

AG

①

ROZTSISHEVSKA-GESEROVSKAYA, Z. [Rozciszewska-Geserowska, Z.]; (Pol'skaya
Narodnaya Respublika)

Growing champignons in pots and boxes (from "Biologia w szkole,"
no.5, 1961). Biol.v shkole no.6:70 N-D '62. (MIRA 16:2)
(Mushroom culture)

ROZUM, A.F.

Potentiated local aensthesia in the district hospital. Zdrav. Belor. 5 no.9:26 S '59. (MIRA 12:12)

1. Iz khirurgicheskogo otdeleniya Iv'yevskoy rayonnoy bol'nitsy (glavnyy vrach P.V. Alekseychik).

(LOCAL ANESTHESIA)

ROZUM, A.F.

Rupture of sigmoid colon and rectum with prelapsus of the small intestine through the rectum. Khirurgiia 32 no.2:75 F '56.
(MLRA 9:7)

1. Iz khirurgicheskogo otdeleniya Iv'yevskoy rayonnoy bol'nitsy Molodechnenskoy oblasti.
(INTESTINES--WOUNDS AND INJURIES)

ROZUM, A.F.

Prevention of postoperative suppurations with novocain anesthesia associated with penicillin. Khirurgiia no.7:47-48 Jl '54.
(MLRA 7:10)

1. Iz Iv'yevskoy rayonnoy bol'nitsy Molodechnenskoy oblasti (glavnyy vrach A.F.Rozum)
(ABSCESS,
postop., prev. with procaine with penicillin)
(PROCAINE,
prev. of postop. abscess, with penicillin)
(PENICILLIN,
prev. of postop. abscess, with procaine)

ROZUM, J.

Is the allocation of money to the indivisible fund adequate on our collective farm?

P. 35. (ROLNICKE HLASY) (Praha, Czechoslavakia) Vol. 11, No. 12, Dec. 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

8c

C-4

COMMON ELEMENTS

96[illegible]. Physico-chemical investigation of oxidation products of adrenaline. I. Chromatographic separation. I. S. [illegible] and S. S. Urazovskii ([illegible], 19[illegible], [illegible]).—Coloured products resulting from oxidation of adrenaline by I, H_2O_2, O_2, etc. in aq. solution were analysed chromatographically with Al_2O_3. Qual. results are given. The complicated character demonstrated for these mixtures suggests that direct quant. colorimetry of oxidised adrenaline may be unreliable. R. L. M. S.

COMMON VARIABLES INDEX

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

AUTHOR INDEX

1ST AND 2ND LETTER

L 47091-66 EWT(m)/EWP(t)/ETI IJP(c) JH/JD/WW/HW/JG

ACC NR: AP6030767 (A) SOURCE CODE: UR/0363/66/002/009/1581/1585

AUTHOR: Markiv, V. Ya.; Matushevskaya, N. F.; Rozum, S. N.; Kuz'ma, Yu. B. 57B

ORG: Lvov State University im. I. Franko. (L'vovskiy gosudarstvennyy universitet)

TITLE: Study of aluminum-rich alloys of the Zr-Ni-Al system
27 27 27

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 9, 1966, 1581-1585

TOPIC TAGS: aluminum alloy, aluminum compound, nickel containing alloy, zirconium containing alloy, aluminum nickel zirconium alloy, alloy phase composition

ABSTRACT: Ninety-nine aluminum-rich alloys of the Zr-Ni-Al system containing up to 33 at% Zr and up to 75 at% Ni have been melted from high-purity components and their phase composition and crystal structure investigated. On the basis of obtained results, an isothermal (800C) section of the ternary diagram was plotted. Five ternary compounds were identified in the alloys: $ZrNi_2Al$ (a = 6.123 Å) and $ZrNi_{0.5—0.2}Al_{1.5—1.8}$ (a = 7.355—7.444 Å) with respective structures of $MnCu_2Al$ and $MgCu_2$ type; $Zr_{0.8}Ni_{1.2}Al_2$ (a = 12.08 Å) with a cubic structure; ZrNiAl (a = 6.93 Å; c = 3.47 Å; c/a = 0.50) with a hexagonal lattice; and $ZrNiAl_4$, whose structure has not been determined. Orig. art. has: 3 figures and 3 tables. [TD]

SUB CODE: 11, 20/ SUBM DATE: 06Dec65/ ORIG REF: 007/ OTH REF: 014/

Card 1/1 hs UDC: 546.3—19—831—74—621

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

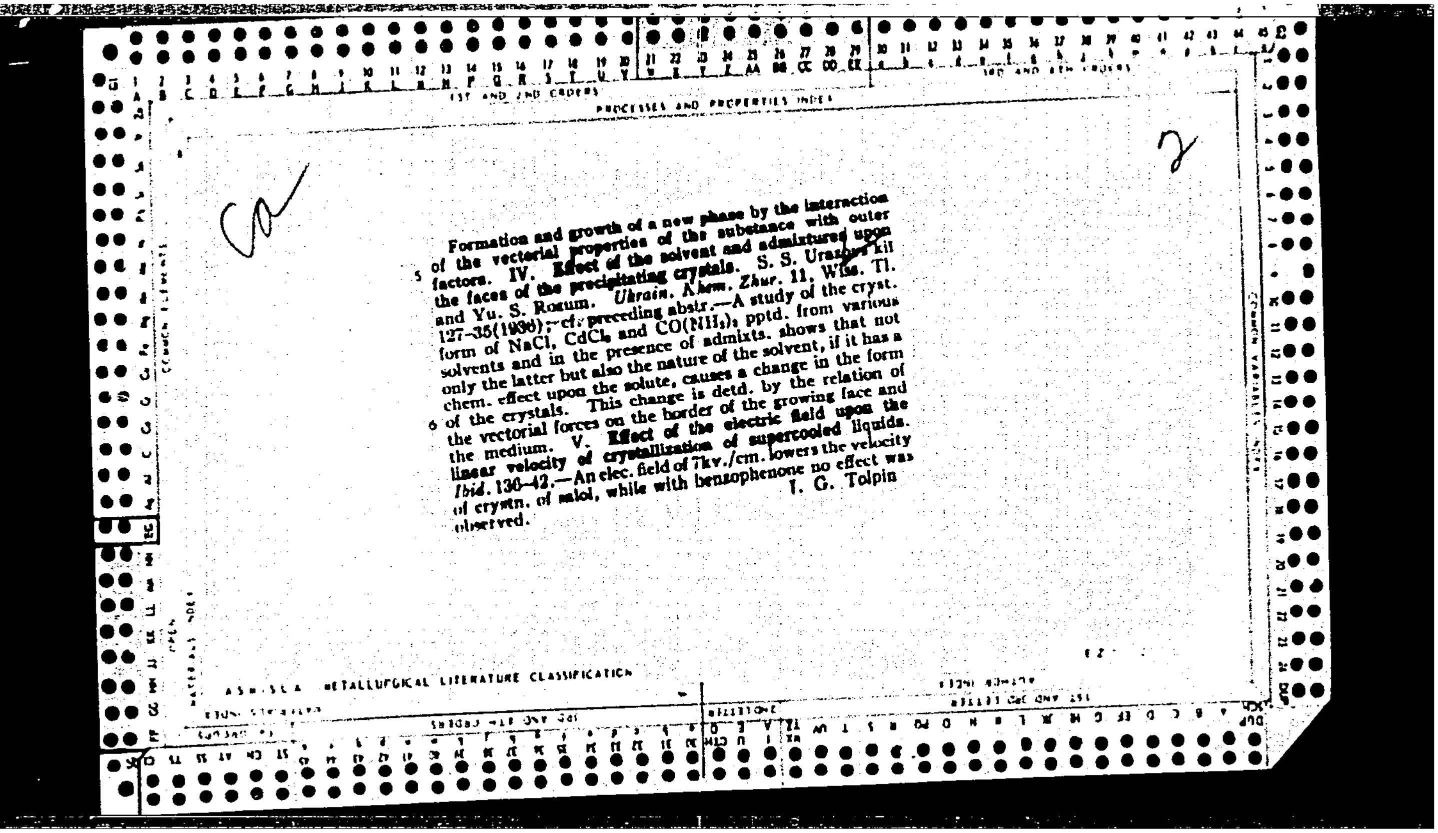
BC

a-1

Formation and growth of a new phase in relation to the influence of vectoral properties of a substance, and of external factors. IV. Influence of solvent and of admixtures on the form of the crystals separating. V. Influence of an electric field on the linear velocity of crystallisation in supercooled liquids. S. S. Urazovski and J. S. [illegible] (Ukrain. Chem. J., 1936, 11, 127—135, 136—142).—IV. The size and shape of crystals separating from supersaturated solutions of NaCl in H_2O or EtOH, CdI_2 in H_2O, MeOH, EtOH, PrOH, BuOH, Et_2O, $COMe_2$, $CHCl_3$ or PhMe, and of $CO(NH_2)_2$ in H_2O, EtOH, PrOH, BuOH, Et_2O, MeCHO, CCl_4, C_6H_6, PhEt, or $PhNO_2$ vary according to the nature of the solvent, and of other substances (PhOH and Bu^aCO_2H) present. The phenomena are interpreted on the basis of selective adsorption on different crystal edges.

V. The rate of crystallisation of salol, but not of $COPh_2$, is reduced in an electric field; the effect is ascribed to differences in the relative proportions of the different polymorphs of salol present. R. T.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Co

2

Formation and growth of a new phase by the interaction of the vectorial properties of the substance with outer 5 factors. IV. **Effect of the solvent and admixtures upon the faces of the precipitating crystals.** S. S. Urazovskii and Yu. S. Rozum. *Ukrain. Khem. Zhur.* 11, Wiss. Tl. 127-35(1936); cf. preceding abstr.—A study of the cryst. form of NaCl, $CdCl_2$ and $CO(NH_2)_2$ pptd. from various solvents and in the presence of admixts. shows that not only the latter but also the nature of the solvent, if it has a chem. effect upon the solute, causes a change in the form 6 of the crystals. This change is detd. by the relation of the vectorial forces on the border of the growing face and the medium. V. **Effect of the electric field upon the linear velocity of crystallization of supercooled liquids.** *Ibid.* 130-42.—An elec. field of 7kv./cm. lowers the velocity of crystn. of salol, while with benzophenone no effect was observed. I. G. Tolpin

1ST AND 2ND GROUPS

3RD AND 4TH GROUPS

PROCESSES AND PROPERTIES INDEX

Cu

21

Physicochemical methods of investigation of coal extracts. S. S. Urazovs'kiĭ and Yu. S. Rozum. *Ukrain. Khem. Zhur.* 12, 525-35(1937).—A pyridine ext. from coal from the Voroshilov mine in the Donets Basin was used. Extn. was made with 100 g. of coal at 180 atm. for 6 hrs. The ratio of coal to pyridine was 1:5. The yield was 30% of the sample. The ext. was washed with 2% HCl, then with water, and dried over H_2SO_4. Soly. of the ext. was 10% in EtOH, 30% in C_6H_6 and 45% in Et_2O, $CHCl_3$ and petr. ether. Chem. analysis showed 1.13% acids and phenols sol. in Et_2O, 1.67% bases and 94% neutral compds. The acid and neutral parts had 17 and 22% unsatd. compds., resp. For the chromatographic analyses Al_2O_3 was used as an adsorbent. The use of Al_2O_3 was especially suitable for the acid part. The detn. of the aggregate state of small amts. of solns. sepd. from the chromatograms was made by the authors' method of testing the surface of these liquids. Method: Place a drop of the ether soln. of the liquid on the surface of clean water. After the ether evapn. there remains a film which can be deformed with a glass needle. If the film liquid is hard, then the film will break up into many parts, otherwise it will behave like a liquid and coalesce. B. Z. Kamich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ROZUM, Yu. S.; URAZOVSKIY, S. S.

"A Physico Chemical Study of the Products of Oxydation of Adrenalyn. Zhur. Obshch. Khim., 10, No 17, 1940. Lab. of Phys. Chem., Ukranian Inst. of Experimental Medicine, Khar'kov, Received 5 Dec 1939.

Report U-1610, 3 Jan. 1952.

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

CA

LIB

Physical-chemical investigation of the oxidation products of adrenaline. II. Chromatographic separation of the oxidized adrenaline products. Yu. S. Rozum and S. S. Urazovskii. *Biokhimiya* 5, 393-400(1940); cf. C. A. 35, 2911^9.—Adrenaline solns., 1:1,000, were oxidized by various reagents, and the resulting colors examd. chromatographically, with Al_2O_3 as an adsorbent. The green fluorescent color represented a labile adrenaline deriv., which on further oxidation was easily transformed into a stable pale-violet to dark-violet product. Present colorimetric methods of detg. adrenaline by oxidation utilize color changes which are at variance with the true changes as demonstrated by chromatographic analysis.

H. Priestley

Physics-chem. lab, Ukrainian Inst. of Experimental med.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Ca

11A

Physicochemical investigation of the products of oxidation of adrenaline. I. Separation of adrenochrome. ~~Naum~~ S. Rozum and S. S. Urazovs'kii. *J. Gen. Chem.* (U. S. S. R.) 10, 1573-9(1940).—The nature of the oxidation products of adrenaline is a very important problem in biochemistry. The ambiguity of results reported by many authors impelled R. and U. to look for a better method of approach. They chose the chromatographic method. Adrenaline was oxidized according to Vulpian (*Compt. rend. soc. biol.* 3, 223 (1856)). The red oxidation product called "adrenochrome" by Green and Richter (C. A. 31, 5807) is not a single compd. but a group consisting of at least seven compds. The water-sol. ether-insol. portion besides the filtered-out melanin-like bodies gives six chromatographically differentiated compds. Semiquant. relationships of different layers of the chromatogram are given. David Aelony

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

BC

B-3

COMMON ELEMENTS

Physico-chemical study of products of oxidation of adrenaline. I. Isolation of adrenochrome. J. S. Rosum and S. S. Urazovski (J. Gen. Chem. Russ., 1940, 10, 1873—1879).—Adrenochrome is shown by chromatographic analysis to be a mixture of ≮ 7 substances. Of these, a brown substance predominates. At any given pH a state of dynamic equilibrium exists between all these substances. R. T.

COMMON VARIABLES INDEX

OPEN

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

AUTHOR INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

2ND LETTER

1ST AND 2ND LETTER

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

3

Absorption spectra and structures of benzene derivatives. XI. Acetophenone. N. A. Valyashko and Yu. S. Rozum (Kharkov Chem. Tech. Inst.). *J. Gen. Chem.* (U.S.S.R.) **16**, 803-809(1946); cf. *C.A.* 33, 1127⁸.—Absorption spectra of acetophenone were detd. in hexane, EtOH, H_2SO_4, and solns. of EtONa. The curves are given. A new band (β-band) was found which increased in intensity with alkali being present. There were found 6 bands in acetophenone soln. in hexane, which are grouped by intensity in the order: β, α, ϵ. The weak β-band was compared with the weak band of 2,3-dimethyl-1,3-butadiene and shown to be related to the conjugated bond system and presumably, with acetophenone, to the existence of a bi-radical structure. In strong H_2SO_4 there is resonance between the carbonium and oxonium cation structures, with the α-band being enhanced by the former structure and the ϵ-band by the latter. Similar resonance exists also in the solns. of acetophenone in neutral solvents, with the added structure of the classical structural formula. In the presence of EtONa the spectrum of acetophenone undergoes but little variation, which is presumably due to formation of hemiacetals. A very weak enolization of acetophenone is postulated. The 6 bands in hexane have max. at: 3850, 3250, 2805, 2770, 2870, and 1000 A. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

PROCESSES AND PROPERTIES INDEX

Absorption spectra and structure of benzene derivatives.
XII. 2- and 4-Hydroxyacetophenone and their methyl
others. N. A. Valyashko and Yu. S. Rozum. (S. M.
- Kirov Chem. Technol. Inst., Kharkov). J. Gen. Chem.
(U.S.S.R.) 17, 755-82(1947)(in Russian); cf. C.A. 41,
1152c.—Absorption spectra (2000-4000 A.) are given
graphically and in tables. o-HOC_6H_4COMe (I), p-HOC_6-
H_4COMe (II), o-$MeOC_6H_4COMe$ (III), and p-$MeOC_6H_4$-
COMe (IV) were synthesized according to Rosenmund and
Schnurr (C.A. 22, 1579) and Auwers (C.A. 9, 1450);
I and II were sepd. successfully by chromatography with
Al_2O_3 and MgO, and elution with EtOH and Et_2O; II is
adsorbed in the upper 1st layer; under a quartz Hg lamp,
I emits a bright turquoise light, persisting for 3-4 months,
while II shows only a faint and rapidly decaying violet
color. (1) Absorption of I in C_6H_{14} $(10^{-4}-10^{-3}\ M)$ begins
(ϵ = 10) at λ = 3835 A., reaches a max. (σ_2 band) at
λ 3250, ϵ 3500, then descends, passes through an inflection
(λ 2780, ϵ 350) corresponding to the φ band of PhCOMe,
and through a min. at λ 2685, ϵ 100, then ascends again to
a 2nd max. λ 2510, ϵ 9000 (σ_1); a 2nd min. at λ 2300 is

followed by a renewed rise up to λ 2250, ϵ 10,000. The
curve in EtOH $(10^{-4}-10^{-3}\ M)$ differs from that in C_6H_{14}
in a somewhat greater height of the σ_2 band and a slight
shift of the σ_1 band to longer λ; also, the φ band is not so
clearly indicated. Introduction of OH in the ortho position
in PhCOMe increases the intensity of the σ_2 band 70 times,
lowers that of φ 3 times, narrows σ_1 and shifts it to longer
λ by about 140 A., with a 1.4-fold decrease of intensity.
(2) Absorption of II in EtOH $(10^{-4}-10^{-3}\ M)$ begins at
λ 3000, rises to a max. (φ band) at λ 2765, ϵ 25000, then
falls to a min. at λ 2375, ϵ 1000, then rises to a 2nd max.
(narrow σ_1 band) at λ 2210, ϵ 10,000. As compared with
PhCOMe, OH in the para position, inasmuch as it shifts the
whole spectrum to longer λ, causes the weakened σ_2 band to
be completely masked by the basis of the φ band; the inten-
sity of the latter is increased 25 times; the σ_1 band is about
1.3 times less intense. (3) In soln. in 63.8% H_2SO_4 in
EtOH, absorption of I $(10^{-4}-10^{-3}\ M)$ begins at λ 4400, ϵ 10,
i.e., is shifted to longer λ by about 510 A.; it then rises,
nearly parallel to the curve of the neutral soln., to a very
broad max. (σ_2) at λ 3580, ϵ 4000, lower than in neutral
soln.; the min. (at 3160) is almost 3 times less intense and
is shifted to longer λ by almost 400 A. The curve then
rises to a 2-hump max. (φ + σ_1) λ 2830, ϵ 10,000, and λ
2665, ϵ 9000; this is followed by a min. (λ 2350, ϵ 1000)
and then a rise to λ 2185, ϵ 10,000. In the same soln., II
($2 \times 10^{-4}-10^{-3}\ M$) shows beginning absorption at λ
3915, rising steeply to a max. (σ_2 + φ) at λ 3350, ϵ 27,500,
then falling to a deep min. at λ 2500, ϵ 300, and rising to the
σ_1 max. at λ 2230, ϵ 4000. Compared with PhCOMe in the
same soln., OH in the para position brings about stronger
development of the φ band and its shift to longer λ by
500 A. (4) Absorption of III in C_6H_{14} $(10^{-4}-10^{-3}\ M)$
begins at λ 3700, bends over to a steeper rise at ϵ 200-300,
and has its σ_2 max. at λ 2970, ϵ 3500; after passing through
a min. at λ 2800, the curve reaches the σ_1 max. at λ 2410,
ϵ 8000, passes a 2nd min. (ϵ 4000), and rises again. In
EtOH soln., the absorption curve of III is very similar to
that in C_6H_{14}, except for minor shifts; the only essential
difference is that in C_6H_{14} (but not in EtOH) the φ band
is indicated by a bend preceding the min. between σ_2 and σ_1;
at this bend, ϵ = 1000, as against ϵ = 350 for I, and ϵ =

[illegible] for PhCOMe; in other words, OH in the ortho position
shifts the equil. between the σ and φ states strongly in
favor of the former while methylation at OH reëstablishes
the original equil. The inflection in the 1st ascending
branch of the curve of III indicates an ω_1' band (λ 3200,
ϵ 250), corresponding to ω_1 of PhCOMe; in EtOH soln.,
this is almost completely masked by the overlapping long-
wave edge of the main max. σ'. In the case of I, this over-
lapping is, evidently, complete owing to a shift of ω_1' to
shorter λ and of ω_1' to longer λ. (5) Absorption of IV in
C_6H_{14} (5×10^{-4}–10^{-3} M) begins at λ 3650, passes through
a level portion of ϵ = 80–90, λ 3300–2960, corresponding
to the ω_1' bend observed in III; on the following steeply
ascending branch, a bend-over to shorter λ at λ 2900, ϵ
3500, corresponds to the φ band of PhCOMe, while the
subsequent 2-hump max. λ 2750, ϵ 15,000, and λ 2630,
ϵ 20,000, corresponds to its 2 narrow φ bands; after passing
through a min., ϵ 800, the curve ends in a narrow band,
λ 2200, ϵ 12,500. In EtOH, owing to a shift of φ and of ω_1
to longer and to shorter λ, resp., the horizontal ω_1' portion
has disappeared almost completely, except for a hint of
an inflection; the 2 humps of φ are merged into 1 max.,
λ 2745, ϵ 18,000. Thus, methylation of the para OH
results in baring the ω_1' band. As in PhCOMe, ω_1 in II
and in IV is shifted to longer λ by C_6H_{14} and to shorter λ
by EtOH, φ to shorter λ by C_6H_{14} and to longer λ by EtOH.
(6) Addn. of 1 mole alkali per mole I in EtOH shifts the
portion of the curve between ϵ 10 and ϵ 100 to longer λ
by 450–500 A.; 10-fold diln. with EtOH shifts the ϵ 100–
1000 portion back (to shorter λ) by 200 A.; one more 10-
fold diln., completing the alcoholysis, reëstablishes the
position of the curve in neutral soln. from ϵ 1000 to 10,000.
In a soln. of I (5×10^{-4}–10^{-3} M) in 10^{-3} M alkali, ab-
sorption begins at λ 4350, rises nearly parallel to that of the
neutral soln., has the ω_1 max. at λ [illegible], ϵ 7670; the band
is strongly broadened and its long-wave edge is shifted by
300 A. to longer λ; it is followed by a min. at λ 2925, ϵ 160;
instead of an ω_1 band, there is a bend at about λ 2500,
ϵ 4000–10,000, going over directly into a narrow max., λ
2280, ϵ 16,000. In the presence of 10 moles alkali per mole
I (10^{-3} M), the curve coincides completely with the fore-
going within ϵ 10–100; diln. of I to 10^{-4} M causes no alco-
holysis between ϵ 1000 and 6000; ω_1 is situated at λ 3620,
ϵ 6000. Further increase of the alkali (100 and 1000 moles)
results only in some lowering of the intensity of ω_1 and in
considerable flattening of the min. sepg. ω_1 from σ_1; this
flattening (from ϵ 160 to 500) corresponds obviously to some
degree of emergence in alk. soln. of the φ absorption which
is suppressed in neutral alc. soln. (7) Addn. of 1 mole
alkali per mole II in EtOH shifts the long-wave edge of φ
to longer λ by 300 A.; a single 10-fold diln. causes no alco-
holysis (in contrast to I); only on a 2nd 10-fold diln. does
the curve bend back to shorter λ from λ 3580, ϵ 1300, on;
it merges with the neutral curve at λ 2940, ϵ 10000. In a
soln. of II (2×10^{-4}–10^{-3} M) in 10^{-3} M alkali, absorption
begins at λ 3950, rises steeply to the φ max. at λ 3285, ϵ
33,000, and falls, after passing through a bend at ϵ 3000,
to a min. at about λ 2600, ϵ 900, ending in an ω_1 max. at
λ 2390, ϵ 9000. Increased amt. of alkali (10, 10,000, 20,000
moles) has no effect other than gradual lowering and
rounding of the φ band; the min. is increasingly raised,
broadened, and blunted. (8) But for the relative enhance-
ment of the σ bands and the relative weakening of φ in I,
and the reverse in II, the spectra of both I and II include
all 2 bands of PhCOMe, and their shifts depending on the

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

Distn. of the sol. products in the wash water gave a fraction b. 74-80° contg. 65.2% MeCOEt, identified by its semicarbazone. The hydrocarbon was fractionated into (amts. in wt. %) b. <72° (2.6), 72-105° (5.2), 105-10° (4.0), 110-20° (17.8; main b. 117°), 120-5° (3.9), 125-35° (16.2; main b. 132-3°), 135-7.5° (3.0), residue and loss (45.6). In the fraction b. 131-4°, hydrogenation over Pt black detected: dienes C_8H_{14} 84.2, ethylenes C_8H_{16} 15.8; the hydrogenated product was 3-methylheptane; oxidation with excess $KMnO_4$ having given HCO_2H, AcOH, and $EtCO_2H$, it is inferred that the fraction is mainly a mixt. of 3-methylheptadiene (oxidized to AcOH, $EtCO_2H$, and pyruvic acid → AcOH + CO_2) and 2-ethyl-1,3-hexadiene (oxidized to HCO_2H and $EtCO_2H$). The fraction b. 110-20°, narrowed down to 115.5-8° (80%), was hydrogenated to 3-methylheptane and found to contain dienes 33.9, ethylenes 66.1%; by its oxidation products, the ethylenic C_8H_{16} is a mixt. of 3-methyl-2-heptene and 3-methyl-5-heptene. The fraction b. 120-5° contained dienes 55.2%, intermediate between the fractions 131-4° and 115.5-8°. In all 3 fractions, dienes constituted 40% of all hydrocarbons. The proposed reaction scheme is: $MeCH_2CH(OH)Me \rightarrow MeCH_2COMe + H_2$; $2MeCH_2COMe \rightarrow MeCH_2CMe(OH)CH_2COCH_2Me \rightarrow MeCH_2CMe{:}CHCOCH_2Me + H_2O$; $MeCH_2CMe{:}CHCOCH_2Me + 2H \rightarrow MeCH_2CMe{:}CHCH(OH)CH_2Me \rightarrow H_2O + MeCH{:}CMeCH{:}CHCH_2Me$ or $MeCH_2C({:}CH_2)CH{:}CHCH_2Me$. This rearrangement is analogous to that of B. and F. (*loc. cit.*). Formation of the C_8H_{16} is the result of complete satn. of the unsatd. ketone or secondary alc. and subsequent splitting off of H_2O. N. Thon

ROZUM, Yu. S.

Kiprianov, A. I. and Rozum, Yu. S. "Synthesis of N-alkyl-akridones", Ukr. khim. zhurnal, 1948, Issue 1, p. 17-28, - Bibliog: 7 items.

SC: U-3042, 11 March 53, (letopis 'nykh Statey, No. 10, 1949).

ROZUM, YU. S.

USSR/Chemistry - Benzene Derivatives, Structure of Apr 48
Chemistry - Benzene Derivatives, Spectra of

"Absorption Spectrum and the Structure of Benzene Derivatives," N. A. Valyashko, Yu. S. Rozum, Lab Org Chem, Kar'kov Chemicotech Inst imeni S. M. Kirov, 12½ pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 4 Submitted 21 Mar 1947.

Describe investigation of polarographic reduction potentials of acetophenone, 2-oxy-, 4-oxy-, 2-metoxy-, 4-metoxy-, 2-oxy-4-metoxy-, 2-metoxy-4-oxy, 2, 4-dioxy- and 2, 4-dimetoxyaceto-phenenones. Discuss results. Submitted 21 Mar 1947.

PA 8/49T45

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

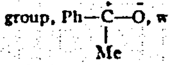
3RD AND 4TH ORDERS

CA

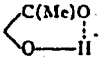
10

COMMON ELEMENTS

Absorption spectra and structures of benzene derivatives. XIV. Polarographic and potentiometric investigation of acetophenone and its derivatives. N. A. Valyashko and Yu. S. Rozum. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 18, 710-22(1948); cf. *C.A.* 42, 2588g.—(1) By polarographic measurements on a dropping Hg cathode, in solns. in H_2O + EtOH, 0.004 *M* in the PhCOMe deriv. and 0.1 *M* in NH_4Cl, the oxidation-reduction potentials *E* (against satd. calomel) are: PhCOMe (I) 1.345, 2-HOC_6H_4COMe (II) 1.360, 4-HOC_6H_4COMe (III) 1.450, 2-$MeOC_6H_4COMe$ (IV) 1.375, 4-$MeOC_6H_4COMe$ (V) 1.435, 2,4-$(HO)_2C_6H_3COMe$ (VI) 1.495, 2,4-$(MeO)_2C_6H_3COMe$ (VII) 1.480, 2,4-$HO(MeO)C_6H_3COMe$ (VIII) 1.443, 2,4-$MeO(HO)C_6H_3COMe$ (IX) 1.510 v. Introduction of OH in the *p*-position to CO increases *E*, i.e. lowers the reducibility of CO, 7 times more than in the *o*-position. Simultaneous presence of OH in both the *o*- and *p*-positions enhances this effect. MeO groups exert a lesser influence than OH. The effect of OH consists in a lowering of the pos. charge on the C atom of the electromerically polarized CO group,



$Ph-\overset{+}{\underset{|_{Me}}{C}}-\overset{-}{O}$, which results in lower attraction by the cathode, and correspondingly higher *E*. The multiplication of possible resonance structures, due to substitution, acts in the same direction. Differences in *E* are paralleled by shifts in the position of the α_1 absorption band, and by differences of the excitation energy of electronic structures of the CO group (ϵ), thus, IV-I, 30 mv. (millivolts), −165 A., and +4838 kcal./mole; VII-IV, 105, −35, +1044; VII-I, 135, −200, +5882; VIII-, 135, −100, +2846; VIII-VI, 52, −10, +189; II-I, 15, +40, −1138. Deviations from additivity (simple superposition) of changes of *E* on introduction of 2 substituents point to an effect of stabilization by resonance; thus, the change of *E* for VI is 150 mv., as against 120 mv. from the sum of II (15 mv.) and III (105 mv.). The deviation is most marked, 203 as against 135 mv., in the case of IX. Only for VIII does one find a deviation in the other direction, i.e. a change of *E* less than the sum of the changes for the monosubstituted derivs.; this is attributed to intramol. H bonding, 4-$MeOC_6H_3$-



C(Me)O⋯H—O. The ratio $k = \epsilon/E$ is const. and equals 1.4.

MATERIALS INDEX

OPEN

COMMON VARIABLES INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

if both ϵ and E are expressed in electron v. This relation permits prediction of the shift of the max. of the ω_1 absorption band from the change of E, and vice versa. (2) In potentiometric alkalimetric titrations in EtOH and EtOH + H_2O solns., II behaves like a very weak acid, binding $^1/_4$ equiv. of alc. alkali; III is a relatively strong acid, binding 2 equivs.; and VI is a dibasic acid. In the latter, only the *p*-HO is affected by the titration, the *o*-HO consuming only an insignificant amt. of alkali. From the pH at the start of the titration, and the positions of the salt points, the *p*-HO (III) is more strongly acid (pH 6.08), the *o*-HO (II) showing no acidity (pH 7.48). Dissocn. consts. calcd. according to Mizutani (*C.A.* 20, 2008) are: III $10^{-11.97}$, VI $10^{-11.11}$. The normal acidity potentials, $E_0 = (RT/F) \ln$ (acid/base), were detd. according to Schwarzenbach (*C.A.* 25, 1428), by pH measurements in equimol. (0.002 *M*) mixts. of the ketone and NaOEt in 97% alc., giving I 989, II 979, III 800, VI 828, VIII 964, IX 904 mv. Derivs. with 4-HO are more strongly acid and have close E_0; the E_0 values for derivs. with 2-HO confirm the absence of acidic properties of the *o*-HO group. N. Thon

ROZUM, Yu. S.

Formation of phenazine ring. Yu. S. Rozum. *Ukrain. Khim. Zhur.* 16, No. 4, 434–40(1960).—To a suspension of 2.6 g. 2,2'-dinitrodiphenylamine (I) in 100 ml. MeOH 21 g. Na was added with vigorous stirring, and when the violet-red color disappeared, the mixt. was heated 0.5 hr. on the water bath, then dild. to give, in 52% yield, cryst. 9,10-dihydrophenazine (II), m. 212° from MeOH. On heating with Zn powder phenazine (III) was obtained. The following derivs. of II and III were similarly prepd.: *2-MeO*, m. 192° and 123° from 4-MeO deriv. of I; *2,7-di-MeO*, m. 215° and 161° from 4,4'-di-MeO deriv. of I; *2,7-di-Me*, m. 218° and 154–5° from 4,4'-di-Me deriv. of I; *2-Me-7-MeO*, m. 216° and 133–4° from 2-Me-7-MeO deriv. of I. Derivs. of I were prepd. by known methods. G. Meguerian

ROZUM, YU. S.

"Absorption spectra of derivatives of benzthiazoles in ultraviolet light."
Kiprianov, A. I. and Rozum, Yu. S. (p. 2038)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Vol 21, No 11.

ROZUM, YU. S.

Kiprianov, L. P., Yakovlova, L. P., and Rozum, Yu. S. - "The Derivatives of Bisbenzothiazolylmethane" (p. 302)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1952, Vol. 22, No. 2

ROZUM, Yu. S.

Adrenalin absorption in ultraviolet spectrum. Biokhimiia, Moskva 17 no.4:476-479 July-Aug 1952. (CLML 25:1)

1. Department of Chemistry of Kiev State Pedagogical Institute imeni Gor'kiy.

ROZUM Yu. S. Nov. 51

USSR/Chemistry - Thiacyanine Dyestuffs
Benzothiazole Derivatives

"Ultraviolet Absorption Spectra of Benzothiazole Derivatives," A. I. Kiprianov, Yu. S. Rozum, Inst of Org Chem, Acad Sci USSR

"Zhur Obshch Khim" Vol XXI, No 11, pp 2038-2045

Studied ultraviolet absorption spectra in alcsolns of 2-methylbenzothiazole (I), its derives contg amino groups on benzene rings, 2-ethyl-x-naphthothiazole, and a number of quaternary salts of benzothiazole derivs. Detd absorption curves of 2 methylene bases formed under action of Na alcoholate on alk soln of iodomethylates of I and 2-methyl-6-dimethylamino-benzothiazole (II) and of II with different concns of H_2SO_4 ~~increasing concns of H_2SO_4~~ in soln. Absorption curves of II in alc soln at increasing concns of H_2SO_4 showed that salt of this base forms much mor easily on amino group than on benzothiazole ring.

PA 194T51

[illegible], Yu. [illegible]

Adrenalin

Ultraviolet absorption spectra of adrenaline. Biokhimiia 17 No. 4, 1952.

Chair of Chem. of the state Pediatric Inst. im. Gerty, KIEV

9. Monthly List of Russian Accessions, Library of Congress, November 1953, Uncl.
2

ROZUM, Yu. S.

USSR/Chemistry-Benzothiazole Derivatives

Feb 52

"Derivatives of Dibenzothiazolylmethane," A. I. Kiprianov, L. P. Yakovlev, Yu. S. Rozum, Inst of Org Chem, Acad Sci Ukrainian SSR

"Zhur Obshch Khim" Vol XXII, No 2, pp 302-309

Condensation of o-aminothiophenol with esters of methyl-, ethyl-, n-propyl-, iso-propyl-, phenyl-, and dimethylmalonic acids yielded 6 new bases: dibenzothiazolylmethanes substituted in methane residue. Detd ultraviolet absorption curves of dibenzoyhiazolylmethane (I) and its 6 derivs, compared them with absorption curves of 2-(N-methyl-benzothiazolydene-(2))-methylbenzothiazole. Showed that I and its mono derivs develop tautomerism in solns. Prepd 3 new monomethinethiazyanines contg alkyl as substituent at central C atom. Detd their absorption curves in alc solns and showed that mols of these dyestuffs exhibit spatial hindrances preventing coplanarity of thiazole rings.

209T28

ROZUM, YU. S.

Absorption spectra and structure of ~~N-alkylphenazinones.~~ Yu. S. Rozum. *Sbornik Statei Obshchei Khim., Akad.* ~~Nauk S.S.S.R. 1,~~ 600-6(1953).—1-Methoxy-10-methylphenazine methosulfate (I) (*C.A.*, 1-methoxy-5-methylphenazine methosulfate) and 1-methoxyphenazine sulfate in EtOH have identical spectra, with abs. max. at 3900 and 2900 A. Photochem. oxidation of 1-methoxy-10-ethylphenazine ethosulfate (II) yields blue *10-ethyl-1(10H)-phenazinone*, m. 187°, which in alc. H_2SO_4 gives abs. max., shallow about 5500 A., sharp 3900 and 2900 A.; the spectrum is practically identical with that of I in EtOH. The other product of the above oxidation is red *10-ethyl-3(10H)-phenazinone*, m. 174°, whose abs. spectrum has abs. max. shallow about 5000A., sharp at 4800 and 2000A. in alc. H_2SO_4, the spectrum being substantially identical with that of 3-methoxyphenazine sulfate in EtOH. Oxidation of II with ferricyanide yields 2 red products: *10-ethyl-1-ethoxy-3(10H)-phenazinone*, m. 210-12°, and *10-ethyl-1-ethoxy-6-(10H)-phenazinone*, m. 195-7°. The former has abs. max. in alc. H_2SO_4 shallow at about 5100 A., sharp at 4000 and 2900 A. (nearly identical with that of 1,3-dimethoxyphenazine sulfate in EtOH), while the latter has abs. max. at 4200 A. and 2900 A. in alc. H_2SO_4, the spectrum being very similar to that of 1,6-dimethoxyphenazine methyl methosulfate. Oxidation of 1,5-diethoxy-10-ethylphenazine ethosulfate with ferricyanide gave only one product: red *10-ethyl-1,5-diethoxy-6(10H)-phenazinone*, m. 206°, whose abs. max. in alc. H_2SO_4 lie at 4000 and 3000 A., the spectrum being quite different from that of 1,3,5-trimethoxyphenazine sulfate in EtOH (which has abs. max. 6000, 3900 and 2900 A.). Oxidation of 1-methoxy-7-ethoxy-10-ethylphenazine ethosulfate gave 1 product: red *10-ethyl-1-methoxy-7-ethoxy-6(10H)-phenazinone*, m. 185-6°, whose abs. max. in alc. H_2SO_4 lie at 4500 and 3000 A., the spectrum being fairly close to that of 1,6,7-trimethoxyphenazine sulfate in EtOH (abs. max. 4500 and 2800 A). *10-Ethyl-1-methyl-8-(10H)-phenazinone*, blue, m. 160-2°. I, red, decomp. 201°. *1,6-Dimethoxy-10-methylphenazine methosulfate*, red, m. above 300°. *1-Methoxyphenazine*, m. 169°. *1,6-Dimethoxyphenazine*, m. 153°; 1,3-analog, m. 145°. *1-Ethoxy-8-methylphenazine*, yellow, m. 115°. *1,3,5-Trimethoxyphenazine*, yellow, m. 209°; *1,6,7-analog*, m. 215°.

G. M. Kosolapoff

Rozum, Yu. S.

USSR/Chemistry - Synthesis methods

Card	:	1/1 Pub. 116 - 7/20
Authors	:	Rozum, Yu. S.
Title	:	Synthesis of phenazine carboxylic acids. Part 1. - Amides of phenazine carboxylic acid-1
Periodical	:	Ukr. khim. zhur. 20, Ed. 4, 381 - 383, 1954
Abstract	:	The derivation of amides of phenazine carboxylic acid -1, by the Koegl and Postowsky method, from carboxyl chloride and concentrated ammonia, is described. The very same amide was also obtained from methyl ether of phenazine carboxylic acid-1 by mixing with a 25%-ammonia surplus. The melting points, yields and analysis results of the synthesized amides, are given in table. Four references: 3-German and 1-USSR (1930-1952).
Institution	:	Acad. of Sc. Ukr-SSR, Institute of Organic Chemistry
Submitted	:	October 10, 1953

ROZUM, Yu.S.

Synthesis in the series of phenazinecarboxylic acids. Part 2. Hydrazide and hydrazones of phenazine-1-carboxylic acid. Ukr. khim.zhur. 20 no.5:527-529 '54. (MLRA 8:1)

1. Institut organicheskoy khimii Akademii nauk USSR.
(Phenazine-1-carboxylic acid)

Rozum, Yu.

Synthesis in phenazinecarboxylic acid series. III. Arylamides of 1-phenazinecarboxylic acid. Yu. S. Rozum. *Ukrain. Khim. Zhur.* 20, 661-3(1954)(in ~~Russian); cf.~~ *ibid.* 381.—Alkylamides and anilides (Ia) of 1-phenazinecarboxylic acid (I) show some antitubercular activity. The amides, which are reported here, were synthetized by boiling 1 mole of the acid chloride (II) of I (from pure I, m. 230°, and excess SO_2Cl_2) and 2 moles of the corresponding amine in C_6H_6 for 2 hrs. Yields (%), m.ps., and colors of the following Ia are (phenyl substituent given): H, 100, 195°, yellow; *o*-Me, 100, 160°, orange; *m*-Me, 100, 169°, yellow; *p*-Me, 30, 222°, red; *o*-MeO, 87, 160°, orange; *m*-MeO, 95, 148°, orange; *p*-MeO, 87, 203°, red; *o*-O_2N, 100, 218°, yellow; *m*-O_2N, 100, 261°, yellow; *p*-O_2N, 100, 290°, yellow; *o*-Cl, 100, 170, yellow; *m*-Cl, 100, 191°, yellow; *p*-Cl, 100, 234°, yellow. Amides were also prepd. from II and the following amines (% yield, m.p., and color given): 1-$C_{10}H_7$, 80, 223°, yellow; 2-$C_{10}H_7$, 88, 231°, yellow. II and *p*-$C_6H_4(NH_2)_2$ gave 88% of the corresponding diamide, red, m. 340° (from aniline). The tolyl- and the chlorophenylamides are crystd. from EtOH, the anisylamides from 85% HOAc, and the nitrophenyl- and the naphthylamides from C_5H_5N.

Elisabeth Barabash

Rozum, Yu. S.

USSR

Polarographic studies of *N*-alkylphenazines. Yu. S. Rozum (Inst. Org. Chem., Acad. Sci. Ukr. S.S.R., Kiev). *Biokhimiya* 20, 66-70(1955).—A study was made of the reduction potentials of oxo derivs. of phenazine, i.e., blue (5-ethyl-1(5*H*)-phenazinone) and red (10-ethyl-2(10*H*)-phenazinone) products of the oxidation of quaternary salts of phenazine. It was hoped that a relation might be found between reduction potentials of such quaternary derivs. and their therapeutic value in tuberculosis. A group of 17 derivs. were investigated consisting of blue and red phenazines and homologs and analogs of pyocyanine, all of which manifested antibacterial properties. The blue derivs. had a lower reduction potential than their red isomers. Reduction of phenazine on the Hg drop cathode took place in 2 stages. The first was culminated by the formation of semiquinones within the limiting range of 0.4 v.; the 2nd stage formation of meriquinones or hydroxydihydrophenazine was culminated at a reduction potential not above 1.33 v. Acridanone was reduced at higher reduction potential values than the corresponding phenazinones. B. S. Levine

CH

Rozum, Yu. S.

USSR/ Chemistry - Organic chemistry

Card 1/1 Pub. 116 - 15/30

Authors : Rozum, Yu. S.

Title : Syntheses of phenazinecarboxylic acids. Part 4. Phenazinecarboxylic acids and some of their derivatives

Periodical : Ukr. khim. zhur. 21/3, 361-366, June 1955

Abstract : The products obtained through alkaline condensation of anthranilic acid with o-nitroanisole, nitrodimethyl ether of hydroquinone with o-nitrobenzoic acid are described. Other derivatives of the phenazinecarboxylic acid series obtained through hydration and dehydration reactions are listed. Eight references: 5 German, 1 USSR, 1 English and 1 Italian (1891-1953).

Institution : Acad. of Sc., Ukr. SSR, Inst. of Organ. Chem.

Submitted : December 23, 1954

ROZUM, Yu.S.

Synthesis in the series of phenazine derivatives. Part 1. Biphenazinyl-2,2 and its derivatives. Ukr. khim.zhur. 21 no.4:491-495 '55. (MLRA 9:2)

(Biphenazinyl)

Rozum, Yu. S.

Carbonyl derivatives of phenazine. Yu. S. Rozum. *Zhur. Obshchei Khim.* 25, 611-17(1955); *J. Gen. Chem. U.S.S.R.* 25, 583-7(1955)(Engl. translation).—Heating 31 g. pyrocatechol and 35 g. 3,4-diaminotoluene in sealed tubes 50 hrs. at 200-20°, the product washed with hot H_2O and air-dried to permit oxidation of 2-methyldihydrophenazine, and the product extd. with EtOH and chromatographed on Al_2O_3 from ligroine gave 65% *2-methylphenazine*, m. 110°, with best yields reaching 78%. Condensation of 32 g. o-$MeC_6H_4NH_2$ and 40 g. $PhNO_2$ with 90 g. powd. KOH in hot MePh with distn. of H_2O over 10 hrs. gave 6-8% *1-methylphenazine*, m. 108°, after chromatography on Al_2O_3. 1-Methylphenazine (4.2 g.) and 4.2 g. SeO_2 heated to 150°, and 5-6 min. at 160-5° gave 80% yellow *phenazine-1-carboxaldehyde*, m. 175°; in concd. acids this gives red solns., decolorized on diln., reduction potential 0.31-1.33 v., abs. max. 305, 205, 250 mμ; *thiosemicarbazone*, orange, m. 241°; *hydrazone* from this aldehyde and *isonicotinohydrazide*, yellow, m. 210-11°; *oxime*, m. 215°. The aldehyde and 2-methylbenzothiazole ethiodide gave a red styryl-type dye, decomp. 210°, abs. max. 547 mμ; the use of 2-methylbenzothiazole pheniodide gave an analogous dye, red, m. 280°, abs. max. 555 mμ; 2-methyl-β-naphthothiazole ethiodide similarly gave a dye, red, m. 267-8°, abs. max. 575 mμ. Similar oxidation of 2-methylphenazine gave 93% *phen-*

CH

2

YU. S. Rozum

azine-2-carboxaldehyde, yellow, m. 185°; reduction poten-
tials −0.29, −1.29 v., abs. max. 365, 265, 252 mμ; *oxime*,
m. 229°; *phenylhydrazone*, red, m. 240°; *thiosemicarbazone*,
orange, m. 250°; *isonicotinohydrazone*, brown, m. 276°;
hydrazone from *2-benzothiazolylhydrazine*, red-brown, m.
269°. MeMgI and phenazine-2-carboxaldehyde gave 88%
methyl-2-phenazinylcarbinol, yellow, m. 116°, which with
CrO_3-AcOH gave *Me 2-phenazinyl ketone*, yellow-green, m.
108°, giving red color in H_2SO_4, reduction potentials −0.24
and −1.4 v., abs. max. 368 and 262 mμ; *2,4-dinitrophenyl-*
hydrazone, m. 283°; *oxime*, m. 238°; *thiosemicarbazone*,
m. 208°. Oxidation of 0.21 g. 1,4-dihydroxyphenazine with
0.44 g. $Pb(OAc)_4$ in AcOH gave 70% brown *phenazine-1,4-*
dione, decomp. 240-5° (from AcPh), red in H_2SO_4, violet in
HCl, yellow in alkalies (*thiosemicarbazone*, deep red); re-
duction with Zn-AcOH gave 1,4-dihydroxyphenazine. The
dione (0.1 g.) in 3 ml. Ac_2O and 3 drops H_2SO_4, poured into
H_2O gave 0.18 g. *1,2,4-triacetoxyphenazine*, m. 259-60° (from
60% EtOH). Similar oxidation of 1,5-dihydroxyphenazine

gave *phenazine-1,5-dione*, red-brown, decomp. 308-10°
(from AcPh), forms yellow solns. in alkalies, reduces
with Zn-AcOH to original diol, in acid soln. displaces iodine
from KI. Refluxing 8.0 g. 1,7-dimethoxyphenazine with
17 g. $AlCl_3$ in C_6H_6 20 hrs. followed by chromatography on
Al_2O_3 from 1:1 ligroine-$(CH_2Cl)_2$, gave 4.0 g. *1,7-dihydroxy-*
phenazine, yellow, m. 210° (from 60% AcOH); diacetate,
m. 166°. Oxidation of this diol as above gave *1,7-phenazine-*
dione, decomp. 305°, whose properties are similar to those
of the 1,5-isomer. Refluxing 45 g. "hydroquinone nitrodi-
methyl ether," 27 g. *o*-$MeC_6H_4NH_2$, and 100 g. KOH in
MePh 9.5 hrs. gave 5.4% *1-methyl-5,8-dimethoxyphenazine*,
red, m. 189° (from AcOH), after purification on Al_2O_3 in
ligroine. Demethylation with $AlCl_3$ in hot C_6H_6 15 hrs.
gave 52% red *1-methyl-5,8-dihydroxyphenazine*, m. 174°;
diacetate, m. 100°. Oxidation of the diol as above gave 68%
yellow *1-methyl-5,8-phenazinedione*, decomp. 290-2°, which
gave red soln. in alkalies; with Ac_2O in the presence of
H_2SO_4 it gave *1-methyl-5,7(6),8-triacetoxyphenazine*, yellow,
m. 205-6°, forming blue solns. in alkalies. G. M. K.

ROZUM, Yu. S.

Chem

Synthesis in the phenazinecarboxylic acid series. V. Phenazineacrylic acid and its derivatives. Yu. S. Rozum. *Ukrain. Khim. Zhur.* 22, 776-9(1956)(in Russian); cf. *C.A.* 49, 14772*b*; 50, 9420*g*.—2-Phenazinecarboxaldehyde (I) and $CH_2(CO_2H)_2$ in boiling C_5H_5N form *2-phenazineacrylic acid* (II), m. 249°. Esters of II (m.p. given): *Me*, 169°; *Et*, 126°; *Pr*, 124°; *iso-Pr*, 117°; *Bu*, 102.5°. From the acyl chloride (prepd. with $SOCl_2$) were prepd. the following *N*-substituted amides (substituent and m.p.): *H*, 200°; *di-Et*, 164°; *Ph*, 251°; *o-tolyl*, 243°; *m-tolyl*, 223°. The hydrazide (from the Me ester), m. 238°. The Me ester and $NaONH_2$ in MeOH formed the salt of the *hydroxamic acid*; the free acid, m. 255°, red in acid and orange in base. I and AcH in dil. NaOH formed *2-phenazineacrolein*, m. 172° (phenylhydrazone, m. 259°; thiosemicarbazone, m. 253°). Reduction of II with Na-Hg gave the *propionic acid*, m. 175°.

John Howe Scott